

Notes on the Kahikinui project for Jon Matsuoka from Marion Kelly, Jan. 21, 1994

Regarding design, size, etc. of the plant(s) at the site(s) where the power transmission cable exits ocean at Nu`u and returns to ocean at Ahihi Bay, or thereabouts.

It is important for us to be able to describe to the people who live there and/or use the area what kinds of structures will be required for the transmission cable.

Some of the questions that are being asked and that we need to answer:

1. What kind of a plant will be built at the place where the cable comes out of the ocean and on to the land?
2. How many acres will it cover? Will its construction impact the endangered water-fowl pond and the water fowl themselves in the area just back of the sand dune beach and landing at Nu`u?
3. Will the structure (energy plant) have a fence around it, and if so, how high will it be?
4. Will the plant make a noise, or noises? Will it be noisy?
5. Will powerful lights be on at night in the vicinity of the plant?
6. Will it create an electrical field in the area?
7. Why can't the cable be left in the ocean? Why bring it on to the land?
8. Why are the poles so tall?
9. Will the power transport cable create an electrical field? If so, what is the size of the area that will be affected?
10. Is there a plan for a geothermal energy plant(s) to be built in the Ulupalakua-Kanaio-Kahikinui area in order to tap geothermal energy from under Haleakala? Is this why the cable is being brought out of the sea and placed on the land at Kahikinui-Kanaio, Maui?
11. One direct question asked by a Kanaio resident when the cross-country power line was described to him: "What's in it for us?"

Nu`u Landing is Traditional

Nu`u Landing was a traditional canoe land site and was also used in historic times for off-loading cattle and for shipping supplies in to the residents of the area. Today it is still the most important landing site along that part of the Maui coast. In cases of emergency, a small boat might try to make it back to land either at Makena or at Nu`u, depending on which bay was closest to them. Nu`u Landing is still used by people travelling around that part of Maui by canoe and/or kayak. Fishermen bringing their small boats to this area for a weekend of fishing will launch them at Nu`u Landing.

1. The facility that would be built where the cable comes ashore would not be a "plant" in the typical sense; rather, this "transition station" would more closely resemble a small electrical switchyard facility. According to the Hawaiian Electric Company (HECO), "transition stations will be necessary wherever the electric power transmission changes from overhead line to submarine cable or vice versa" (Hawaiian Electric Company, Request For Proposal For The Geothermal/Inter-Island Transmission Project, May 1989). These stations would contain the equipment necessary to: 1) transfer electric power from the submarine cable to overhead transmission lines and 2) pressurize the oil-filled cable for the route segments from the Big Island to Maui and Maui to Oahu.
2. The State has estimated that each transition station would require approximately one acre of land (State of Hawaii Department of Business and Economic Development, Hawaii Deep Water Cable Program Phase II-C, Task 1: Environmental Assessment, August 1987). We do not yet know the impacts of constructing the transition stations, but they will be examined in several sections of the EIS.
3. The transition stations would be constructed within a fenced area for safety and security purposes. Although not specified by HECO or the State, we estimate that the fence would be approximately 8 to 10 feet tall.
4. It is likely that the transition stations would create some noise (probably similar to that typically associated with power transmission facilities). However, it is not expected that the stations would be particularly "noisy" compared to other industrial facilities.
5. It is likely that the transition stations would have exterior lights for safety and security purposes. However, it is expected that the stations would have standard exterior lighting rather than the "powerful" lights referred to in the question.
6. Yes, it is likely that the transition stations would create electromagnetic fields. We do not yet know the size of the fields or the areas that could be affected, but these issues will be addressed in the EIS.
7. The cable described would be brought ashore for two reasons. First, to provide 50 MW(e) of power by connecting with Maui Electric Company transmission grid. Second, even if no power were "dropped off" on Maui, the cable (which would be an oil-filled, pressurized cable) would be brought ashore and re-pressurized for the Maui-Oahu segment of the route (the cable would initially be pressurized for the Big Island-Maui segment at the Big Island transition station).
8. The poles described are typical for 300 kV transmission lines. The height of the poles is related to the distance between each pole--the shorter the poles, the closer they must be to maintain the desired "sway" (catenary) and ground clearance for lines of this size.
9. Yes, it is likely that the transmission cable would create an electromagnetic field. We do not yet know the size of the field or the area that could be affected, but these issues will be addressed in the EIS.

10. The issue of geothermal development on Maui is not part of this EIS because it was not part of the State's original proposal. We are not aware of any plans to develop geothermal energy plants in the Ulupalakua-Kanaio-Kahikinui area. However, the State has designated much of the area as a Geothermal Resource Subzone (the Haleakala Southwest Rift Subzone), so development could occur. If development is proposed for Maui, it will not be considered as part of the original project examined in this EIS.

11. The project will provide an additional 50 MW(e) of baseload power for the Maui Electric Company.

Three reasons for coming on to Maui Island:
 ① Baseload electricity ② no pressure through ③ give Maui some electricity.